

CYLINDROCLADIUM LEAF SPOT OF LEATHER LEAF FERN

J. W. Miller

Leather leaf fern, *Polystichum adiantiforme* J. Smith, is native to South America, South Africa, New Zealand and Polynesia. It is a spreading fern which grows in dense clusters. It has creeping, brown rhizomes and fresh green fronds which may grow to 3 ft in length (2). The fronds are used as cut foliage because of their beautiful green color and exceptional lasting quality.

Leaf spot, caused by *Cylindrocladium pteridis* Wolf, was reported from Florida in 1926 (4) and was referred to as brown spot. It is the most destructive disease on leather leaf fern. A survey in 1959 showed losses of 10 to 30%. Optimum conditions for infection occur during the summer months when the temperature and humidity are high. The fungus is relatively inactive during periods of cool weather and/or low humidity (1).

SYMPTOMS. Infection begins as small, circular chlorotic spots on the pinnules. Later, the lesions become slightly depressed and irregular and turn reddish brown to dark brown in color (Fig. 1). Rachis and stipe lesions are depressed, elongate and reddish brown to dark brown, but are less numerous than those found on the pinnules (3).

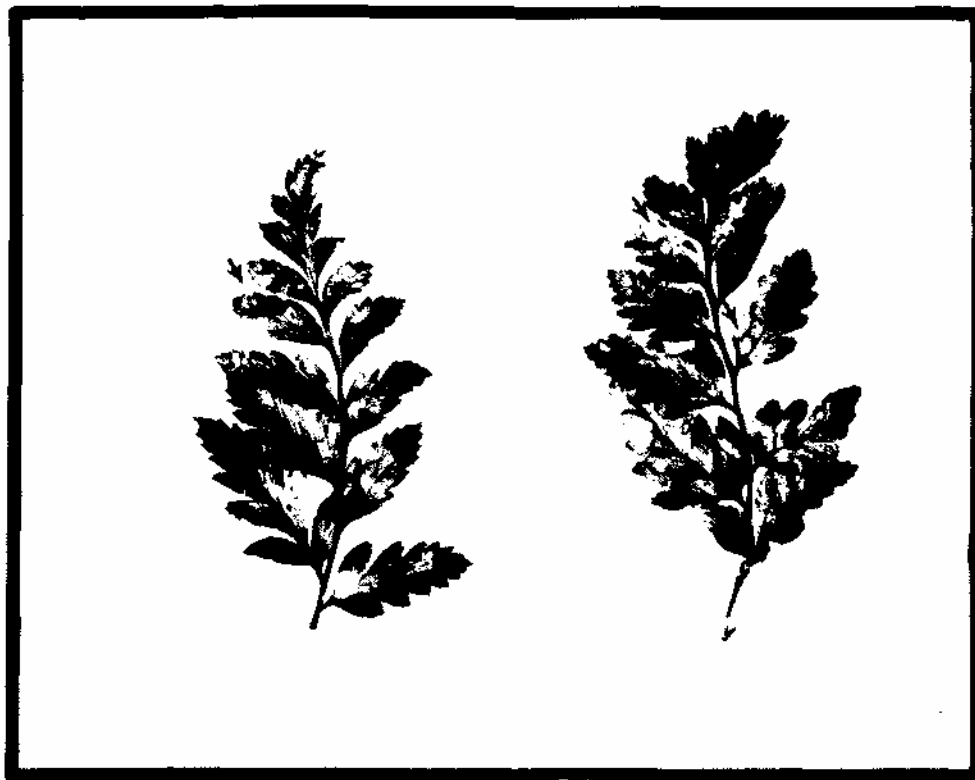


Fig. 1. Brown leaf spots on pinnules of *Polystichum adiantiforme* caused by *Cylindrocladium pteridis*.

CONTROL. Daconil at 1 to 2 lbs/100 gal water has proved effective over the years in grower use for control of brown spot when applied weekly during the hot, wet months. Benlate applied at ½ lb/100 gal water weekly has provided excellent control of *Cylindrocladium* on other crops and limited use to date by growers also shows it effective on ferns. Sanitation, wider plant spacing and care in watering should also reduce losses to this disease.

#### Literature Cited

1. Bolick, J. H. 1958-1960. Leafspot of leather-leaf fern. State Plant Board of Florida, 23rd Bienn. Rept. p. 86.
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3. Sobers, E. K. 1968. Morphology and host range of *Cylindrocladium pteridis*. Phytopathology 58:1265-1270.
4. Wolf, F. A. 1926. Brown leaf spot of leather leaf fern. J. Elisha Mitchell Sci. Soc. 42:55-62.